

Date: Thursday, 2/7/2008 10:54:20 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SADDLE FITTING, FWD (OUTBOARD/INBOARD)
Job Number : 37282	
Estimate Number : 10530	
P.O. Number :	Part Number : D2571
This Issue : 2/7/2008 S.O. No. :	Drawing Number : D2571 REV E
Prsht Rev. : NC	Project Number : N/A
First Issue : 1/1 Type : MACHINED PARTS	Drawing Revision : E
Previous Run : 36322	Material :
Written By :	Due Date : 2/28/2008 Qty: 12 Um: Each
Checked & Approved By : <u>080207</u>	
Comment : Est: 102.10.02 Re-format; Change to Dwg Rev. D & incorporated D2572 KJ	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6101007	7075-T7351 8.25X7.75X2.5
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s)
 7075-T7351 8.25X7.75X2.5
 Make from D6101-007 billet for D2571
 Ensure that grain is along 7.75" length
 Batch No: 12 34875

08/02/26

12

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

Program Batch No. 34282 Double check by: SA

- 1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets
- 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets
- 3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets
- 4-Deburr and remove all machining marks
- 5-Tumble to remove sharp edges.

08/03/01

12

3.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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Comment: CONVENTIONAL MILLING MACHINE

Machine keyway as per dwg D2571 & D2572

08/03/01

12

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

08/03/01

12

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2571 PAR #: N/A Fault Category: Prod / Machine / Part NCR: Yes No DQA: D Date: 08/03/06
 QA: N/C Closed: H Date: 08/03/06

NCR: <u>37282</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>08/02/07</u>	<u>2</u>	<u>WALL THICKNESS ON SKIDTUBE IS 0.111 INSTEAD OF 0.125". THICKNESS AT SKIDTUBE RIDGE IS 0.361" IN SPOTS.</u>	<u>CP</u> <u>08.02.27</u> <u>per</u> <u>081042</u>	<u>SCRAP PART.</u> <u>REPLACE.</u>	<u>MR</u> <u>08/03/01</u>	<u>/</u> <u>0803-06</u>	<u>CP</u> <u>08.02.27</u> <u>per</u> <u>081042</u>	<u>/</u> <u>0803-06</u>
		<u>R.C. operator error.</u>						

NOTE: Date & initial all entries

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Process Sheet

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Drawing Name: SADDLE FITTING, FWD (OUTBOARD/INBOARD)

Job Number: 37282

Part Number: D2571

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

BC 08-03-03

(12)

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

BR 08-03-03

(12)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

FA 08/03/04

(12)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

M-L

M-L

08/03/04

(12X)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 438

8/3/5

50

(12)

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/03/06

(12)

Job Completion



mi 2008/3/05

(12)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

LOSER

DART AEROSPACE LTD	Work Order:	37282
Description: Saddle, Fwd Outboard	Part Number:	D2571
Inspection Dwg: D2571 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443	DT8682	.442	.442	.442	.442		
B	1.745	1.755	DT8682	1.750	1.750	1.750	1.750		
C	3.495	3.505	DT8682	3.500	3.500	3.500	3.500		
D	1.745	1.755	DT8682	1.750	1.750	1.750	1.750		
E	7.990	8.010	DT8682	8.000	8.000	8.000	8.000		
F	0.490	0.510	DT8682	.500	.500	.500	.500		
G	0.257	0.262	DT8683	0.259	0.260	0.260	.260		
H	0.375	0.380	DT8684	.377	0.377	0.377	.377		
I	0.490	0.510	DT8684	.501	0.501	0.500	.501		
J	1.174	1.184	DT8684	1.178	1.180	1.180	1.180		
K	0.558	0.578	DT8684	.566	0.566	0.568	.567		
L	1.174	1.184	DT8684	1.178	1.180	1.180	1.180		
M	1.490	1.500	DT8684	1.494	1.496	1.496	1.496		
N	2.495	2.505	DT8684	2.500	2.500	2.500	2.500		
O	3.869	3.879	DT8684	3.872	3.874	3.874	3.874		
P	0.115	0.135	DT8684	.122	0.126	0.127	.126		
Q	0.115	0.135	DT8684	.135	0.135	0.135	.135		
R	0.240	0.260	DT8684	.250	0.253	0.253	.253		
S	0.115	0.135	DT8684	0.132	0.135	0.133	.133		
T	0.178	0.198	DT8684	.188	0.188	0.188	.188		
U	2.940	2.980	DT8684	2.959	2.956	2.960	2.960		
V	0.230	0.250	DT8684	.241	0.243	0.238	.242		
W	0.115	0.135	DT8684	.120	0.131	0.127	.127		
X	0.308	0.313	DT8684	.309	.308	.310	.310		
Y	0.760	0.765	DT8684	.760	.762	.762	.762		
Z	0.352	0.372	DT8684	.362	.362	.365	.362		
AA	0.470	0.530	DT8684	.500	0.500	0.500	.500		
AB	0.615	0.635	DT8684	.634	.623	.633	.633		
AC	0.053	0.073	DT8684	.063	0.063	0.063	.063		
AD	0.240	0.260	DT8684	.246	0.251	0.247	.247		
AE	1.375	1.395	DT8684	1.388	1.385	1.390	1.385		
AF	0.115	0.135	DT8684	.133	0.133	0.133	.135		
AG	0.240	0.280	DT8684	.251	0.260	0.255	.255		
AH	0.240	0.260	DT8684	.246	0.253	0.248	.253		
AI	2.000	2.020	DT8684	2.002	2.000	2.003	2.004		
AJ	0.023	0.043	DT8684	0.037	0.030	.050	.050		
Accept/Reject									

Measured by:	One / SA
Date:	08/02/28

Audited by:	BE
Date:	08-03-03

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

1.325
1.625

2-166 Sg/A

DART AEROSPACE LTD		Work Order:	37282
Description: Saddle, Fwd Outboard		Part Number:	D2571
Inspection Dwg: D2571 Rev. E		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.438	0.443	DT8682	.442	.442	.442	.440		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.004	8.004	8.004	8.002		
F	0.490	0.510		.493	.493	.493	.493		
G	0.257	0.262	DT8683	.258	.258	.258	.258		
H	0.375	0.380	DT8684	.375	.375	.375	.375		
I	0.490	0.510		.497	.495	.495	.502		
J	1.174	1.184		1.179	1.179	1.179	1.175		
K	0.558	0.578		.566	.570	.570	.571		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.493	1.493	1.493	1.493		
N	2.495	2.505		2.498	2.499	2.499	2.499		
O	3.869	3.879		3.674	3.674	3.674	3.674		
P	0.115	0.135		.127	.126	.126	.126		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.253	.239	.253	.252		
S	0.115	0.135		.133	.130	.131	.130		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.960	2.960	2.960	2.960		
V	0.230	0.250		.242	.241	.241	.241		
W	0.115	0.135		.131	.132	.132	.123		
X	0.308	0.313		.309	.305	.309	.309		
Y	0.760	0.765		.762	.762	.766	.766		
Z	0.352	0.372		.367	.362	.363	.363		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.627	.629	.625	.625		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.258	.260	.260	.260		
AE	1.375	1.395		1.390	1.390	1.389	1.389		
AF	0.115	0.135		.135	.135	.135	.135		
AG	0.240	0.280		.255	.255	.255	.255		
AH	0.240	0.260		.251	.251	.251	.251		
AI	2.000	2.020		2.003	2.003	2.003	2.002		
AJ	0.023	0.043		.030	.030	.033	.033		
Accept/Reject									

Measured by:	SA
Date:	08/02/28

Audited by:	RF
Date:	08-03-03

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

SA

DART AEROSPACE LTD	Work Order:	37282
Description: Saddle, Fwd Outboard	Part Number:	D2571
Inspection Dwg: D2571 Rev. E		Page 1 of 1

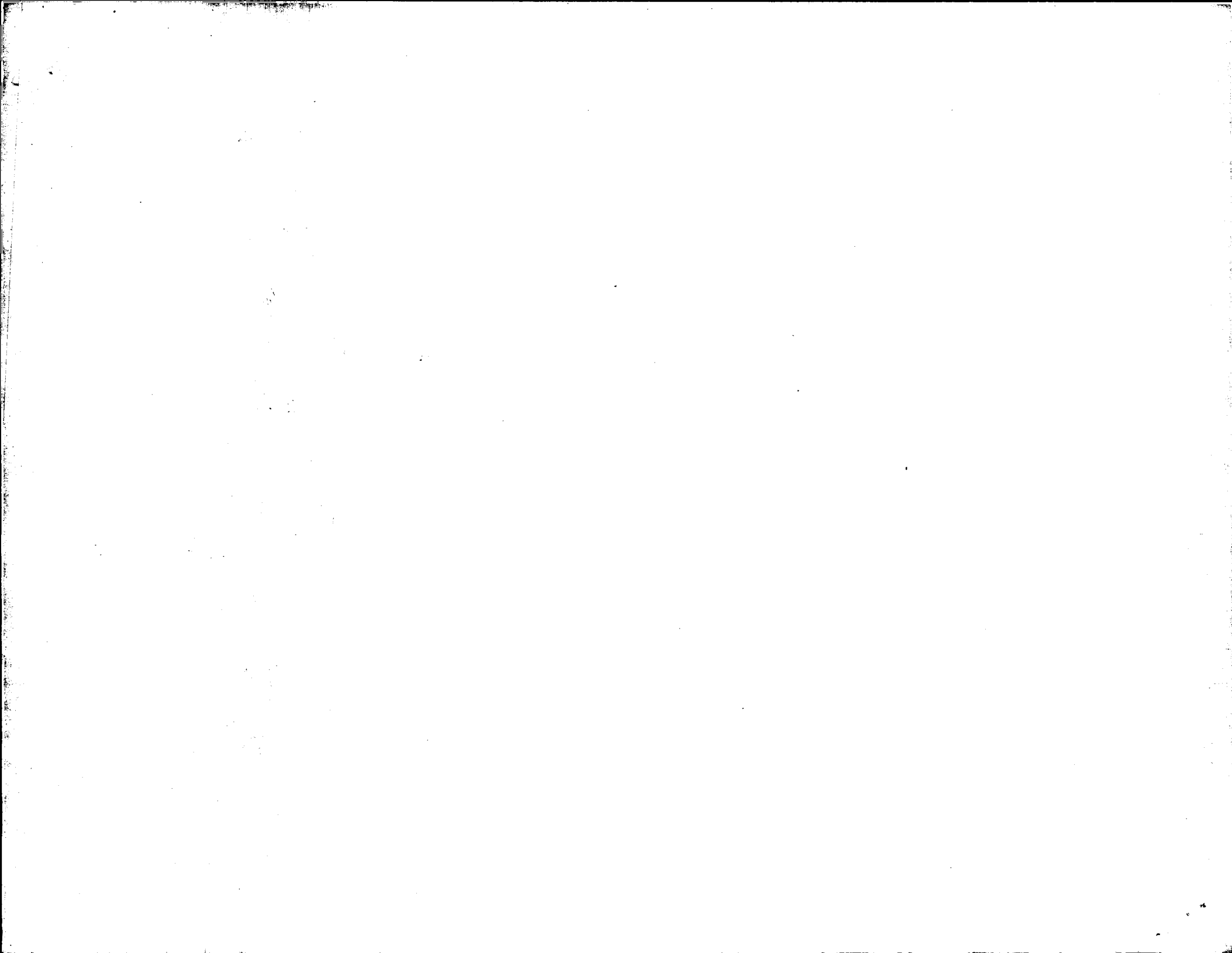
Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions					
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A	0.438	0.443	DT8682	1.442	.442	.442	.442		
B	1.745	1.755		1.750	1.750	1.749	1.750		
C	3.495	3.505		3.506	3.506	3.506	3.506		
D	1.745	1.755		1.756	1.750	1.749	1.750		
E	7.990	8.010		8.002	8.000	8.000	8.000		
F	0.490	0.510		1.501	.501	.501	.509		
G	0.257	0.262	DT8683	1.258	.260	0.259	.259		
H	0.375	0.380	DT8684	.377	.378	0.378	.377		
I	0.490	0.510		.506	.506	0.506	.506		
J	1.174	1.184		1.178	1.178	1.178	1.178		
K	0.558	0.578		.576	.568	0.568	.566		
L	1.174	1.184		1.178	1.178	1.178	1.178		
M	1.490	1.500		1.494	1.494	1.493	1.493		
N	2.495	2.505		2.506	2.506	2.506	2.506		
O	3.869	3.879		3.871	3.871	3.873	3.872		
P	0.115	0.135		0.125	.127	0.128	.126		
Q	0.115	0.135		0.135	.135	0.135	.135		
R	0.240	0.260		0.250	.253	0.253	.252		
S	0.115	0.135		0.130	.133	0.130	.134		
T	0.178	0.198		0.188	.188	0.188	.188		
U	2.940	2.980		2.958	2.958	2.958	2.958		
V	0.230	0.250		0.239	.247	0.238	.248		
W	0.115	0.135		0.126	.127	0.118	.130		
X	0.308	0.313		.309	.309	.309	.309		
Y	0.760	0.765		.766	.766	.766	.760		
Z	0.352	0.372		.362	.362	.362	.362		
AA	0.470	0.530		.500	.506	.500	.500		
AB	0.615	0.635		.632	.632	.628	.630		
AC	0.053	0.073		.063	.063	0.063	.063		
AD	0.240	0.260		.246	.257	0.247	.257		
AE	1.375	1.395		1.392	1.391	1.391	1.382		
AF	0.115	0.135		.133	.133	0.135	.135		
AG	0.240	0.280		.257	.257	0.260	.260		
AH	0.240	0.260		0.249	0.256	0.248	.256		
AI	2.000	2.020		2.005	2.004	2.007	2.000		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by:	<i>[Signature]</i>
Date:	08/03/01






Audited by:	<i>[Signature]</i>
Date:	05-03-03

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>



05.12.06 #

MATERIAL: 7075-T7351 (QQ-A-250/12) (REF DART SPEC. D6102-001)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART
QSI 005 4.3
BREAK ALL SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- | | |
|---|--|
|  | ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010 |
|  | ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125 |
|  | CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES) |
|  | CHAMFER 0.063" x 45° ALL AROUND |
|  | CHAMFER 0.033" x 45° (SEE DETAIL C) |

 $\triangle E$

E	05.07.13	ADD CHAMFER ON RIDGE, NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE

DESIGN	DRAWN BY	NEW MODEL	
DS	PH	DART	DART AEROSPACE LTD. HAMMICKSBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.	REV.
#	#	D2571	SHEET 1 OF
DATE	TITLE		SCALE
05.07.13	OUTER FWD SADDLE		2:

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AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
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DART AEROSPACE LTD.

DETAIL C
SCALE 4:3

SECTION A-A

SHOP COPY
RETURN TO
ENGINEERING
CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 37282

